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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,758	01/05/2004	Heng-I Lin	BHT-3228-69	1684

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EXAMINER

PIGGUSH, AARON C

ART UNIT	PAPER NUMBER
2838	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/750,758

Applicant(s)

LIN ET AL.

Examiner

Aaron Piggush

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Drawings***

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: no. 3'' on page 4, paragraph 0014. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: no. 9'' in Fig. 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not

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accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Examiner points out that it appears that no. 3'' in the specification is actually labeled no. 9'' in Fig. 4, but they are actually both meant to describe the magnetizer.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Inductive Charger Using Fixed and Movable Magnets.

Claim Objections

5. Claims 1-6 are objected to because of the following informalities: In claim 1, line 15, the word "magne" should read "magnet". Furthermore, in claim 1, line 1, the phrase "a portable electrical devices" should be replaced with "portable electrical devices" or "a portable electrical device." Claims 2-6 are objected to because they depend upon an objected claim. Appropriate correction is required.

6. Additionally, Claim 4 is objected to because of the following informality: It states that "the number of the at least a sliding magnet is one or more", but then it refers to multiple sliding magnets. In order to agree with the rest of the claim, it should state that "the number of the at least a sliding magnet is two or more."

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Vektorino (US 6,220,719).

With respect to claim 1, Vektorino discloses an inductive charger adapted for a portable electrical device and connecting with a rectifier for charging, comprising:

a hollow carrier having opposite end portions and an outer surface (no. 10 in Fig. 7), at least a coil surrounding the outer surface thereof (no. 18 in Fig. 7);

fixed magnets being respectively located at end portions of the carrier, N poles and S poles of the fixed magnets being positioned coincident with each other (no. 17 in Fig. 7); and

at least a sliding magnet between the fixed magnets, N pole and S pole of the at least a sliding magnet being positioned opposing to N poles and S poles of the fixed magnets (no. 12 in Fig. 7);

wherein when the carrier moves, the at least a sliding magnet moves back and forth in the carrier due to magnetic repulsion between the at least a sliding magnet and the fixed magnets (abs ln 3-5 and 7-10 and col 5 ln 57-59), flux of the coil varying and producing induced electromotive force (abs ln 3-5 and col 2 ln 53-57), the instantaneous flux change is enhanced with quick moving of the sliding magnet, thereby increasing

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induced electromotive force, correspondingly the induced electromotive force increasing to produce an induced current of large magnitude (col 4 ln 44-46 and Fig. 6a).

With respect to claim 2, Vettori discloses wherein the carrier has an inner surface with the shape of circle, square, or other type (no. 14 in Fig. 7 and abs ln 1-2).

With respect to claim 3, Vettori discloses wherein the number of the coils is one or more, which varies according to required magnitude of the induced current (col 4 ln 27-33 and ln 12-18).

9. Claims 1 and 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Cheung (US 6,768,230).

With respect to claim 1, Cheung discloses an inductive charger adapted for a portable electrical device and connecting with a rectifier for charging, comprising:

a hollow carrier having opposite end portions and an outer surface (no. 6 in Fig. 1), at least a coil surrounding the outer surface thereof (no. 20 in Fig. 1);

fixed magnets being respectively located at end portions of the carrier, N poles and S poles of the fixed magnets being positioned coincident with each other (no. 8 and 10 in Fig. 1); and

at least a sliding magnet between the fixed magnets, N pole and S pole of the at least a sliding magnet being positioned opposing to N poles and S poles of the fixed magnets (no. 2 and 4 in Fig. 1);

wherein when the carrier moves, the at least a sliding magnet moves back and forth in the carrier due to magnetic repulsion between the at least a sliding magnet and the fixed magnets (abs ln 4-5 and col 4 ln 59-64), flux of the coil varying and producing

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induced electromotive force (col 4 ln 60-61), the instantaneous flux change is enhanced with quick moving of the sliding magnet, thereby increasing induced electromotive force, correspondingly the induced electromotive force increasing to produce an induced current of large magnitude (Fig. 8a,b and 9a,b and col 7 ln 38 to col 8 ln 13).

With respect to claim 4, Cheung discloses wherein the number of the at least a sliding magnet is two or more, N poles and S poles of the sliding magnets are positioned coincident with each other (no. 2 and 4 in Fig. 1) for reducing distance between poles thereof and fixed magnets, whereby magnetic repulsion is accumulated and moving speed of the sliding magnets increases (Fig. 8a,b and 9a,b, col 7 ln 38 to col 8 ln 13, and col 4 ln 64-67).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Vettori (US 6,220,719) in view of Chiou (US 2005/0085122).

With respect to claim 6, Vettori discloses the inductive charger as claimed in claim 1, however, does not expressly disclose wherein a plug connects with the rectifier to electrically connect with a charging socket or a socket of charger for charging.

Chiou discloses an inductive charger wherein a plug (no. 8 in Fig. 1 and 2) connects with a rectifier (no. 7 in Fig. 1, 2, and 5) to electrically connect with a charging socket or a socket of charger for charging (pg 2 para 0021 and para 0022), in order to supply a stable and reliable

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current to the electrical device so that it can be charged (pg 2 para 0021) without damaging it or causing malfunctions.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to include a plug to electrically connect with a charging socket in the device of Vektorino, as did the device of Chiou, so that an electrical device could be charged with a stable and reliable current to avoid damage or malfunction.

Allowable Subject Matter

12. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 5 recites wherein a magnetizer surrounds the outer surface of a carrier, which is used as a charging device, for limiting moving distance of a magnet or magnets, thereby adjusting magnitude of current induced by the movement of the magnet/s through a coil.

The art of record does not disclose the above limitations, nor would it be obvious to modify the art in such a manner.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Piggush whose telephone number is 571-272-5978. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AP


KARL EASTHOM
SUPERVISORY PATENT EXAMINER